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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/658,835	09/08/2000	Jonathan P. Duvick	1134R	2865

27142 7590 07/02/2003

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EXAMINER

IBRAHIM, MEDINA AHMED

ART UNIT PAPER NUMBER

1638

DATE MAILED: 07/02/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
09/658,835

Applicant(s)  
Duvick

Examiner  
Medina Ibrahim

Art Unit  
1638



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Apr 17, 2003
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above, claim(s) 10, 13-32, and 39-41 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9, 33, 34, and 36-38 is/are rejected.
- 7) ☒ Claim(s) 11, 12, and 35 is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                              | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)          | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____ | 6) <input type="checkbox"/> Other:  |

### DETAILED ACTION

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Applicant's response filed 04/17/03 in reply to the Office action mailed 10/02/02 and amendment A have been entered. The new CRF disk and paper copy of the sequence listing are noted. However, the CRF does not match application specification. Corrected CRF disk is required in reply to this Office action.

Claims 1, 8-9, 33, 34-35 are amended. Claims 1-9, 11-12 and 33-38 and SEQ ID NO:24 and 50-51 are under examination. Claims 10, 13-32, 39-41 and SEQ ID NO:5-6, 10-11, 22-23, 26, 32-33, 35-4648-49 and 52 remain withdrawn as being drawn to the non-elected invention.

All previous rejections and objections not set forth below have been withdrawn.

#### ***Claim Rejections - 35 USC § 112***

Claims 1-9 and 33-34 and 36-38 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the isolated APAO encoding polynucleotide linked to an esterase encoding polynucleotide, from *Exophiala spinifera* and *Rhinocycladiella atrovirens* or the bacteria of ATCC 55552 isolates from maize seed, and plant cell and plants comprising said polynucleotides, does not reasonably provide enablement for any and all APAO and fumonisin esterase encoding polynucleotides, or host cells comprising them. This rejection is repeated for the

reasons of record as set forth in the Office action of 10/02/02. Applicant's arguments filed 04/17/03 have been fully considered but are not all persuasive.

Applicant's arguments regarding polynucleotide sequences having at least 95% sequences and encoding APAO are found persuasive. However, the arguments regarding claims drawn to any esterase or any APAO encoding polynucleotide, and to hybridizing sequences are not deemed persuasive for the reasons of record. While the high stringent conditions as recited in the claims would provide sequences that are structurally similar to SEQ ID NO:50, one cannot predict that the majority of resultant sequences would encode a polypeptide having the functional activity of SEQ ID NO:51. In addition, the specification does not provide guidance for primers specific to APAO and esterase encoding polynucleotides which would enable one skilled in the art to obtain any esterase and APAO encoding polynucleotide from sources other than *Exophiala spinifera* and *Rhinocycladiella atrovirens*. Absent such guidance, one who is willing to practice the invention is left with trial and error experimentations considered undue.

#### ***Written Description***

Claims 1-9, 33-34, and 36-38 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. This rejection is repeated for the reasons of record as set forth in the Office action of 10/02/02.

Applicant's arguments filed 04/17/03 have been fully considered but are not all persuasive.

Applicant's arguments regarding polynucleotide sequences having at least 95% sequences and encoding APAO are found persuasive. However, the arguments regarding claims drawn to any esterase or APAO encoding polynucleotides, and the hybridizing sequences are not deemed persuasive for the reasons of record. While the high stringent conditions as recited in the claims would provide sequences that are structurally similar to SEQ ID NO:50, one cannot predict that the majority of resultant sequences would encode a polypeptide having the functional activity of SEQ ID NO:51. With respect to claims drawn to any esterase and any APAO encoding polynucleotides, the claims are defined by function only. Neither the instant specification nor the prior art provides correlation between the structure and function of an APAO and esterase DNA/protein. Therefore, the disclosure of the polynucleotide sequences from *Exophiala spinifera* (ATCC Accession No. 74269) and *Rhinocladiella atrovirens* (ATCC Accession No. 74270) or the bacteria of ATCC Accession No. 55552 isolates from maize seed and plant and plant cells comprising them would not provide adequate written description for the genus of the claims, as stated in the last Office action.

#### **Remarks**

Claims 1-9, 11-12 and 33-38 are free of the prior art of record.

Claims 11-12 and 35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

1. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

No claim is allowed.

Papers relating to this application may be submitted to Technology Sector 1 by facsimile transmission. Papers should be faxed to Crystal Mall 1, Art Unit 1638, using fax number (703) 308-4242. All Technology Sector 1 fax machines are available to receive transmissions 24 hrs/day, 7 days/wk. Please note that the faxing of such papers must conform with the Notice published in the Official Gazette, 1096 OG 30, (November 15, 1989).

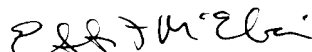
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Medina a. Ibrahim whose telephone number is (703) 306-5822. The Examiner can normally be reached Monday -Thursday from 8:00AM to 6:00PM and every other Friday from 9:00AM to 5:00 PM .

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Amy Nelson, can be reached at (703) 306-3218.

Any inquiry of a general nature or relating to the status of this application should be directed to the receptionist whose telephone number is (703) 308-0196.

June 26, 2003

mai

  
ELIZABETH F. McELWAIN  
PRIMARY EXAMINER  
GROUP 1600